



**Water Business Group**

Recharge Fresno Program Office  
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May 3, 2016

Fresno P.O. No.: 0000068536

CH2M Project No.: 482124

Mr. Michael Carbajal  
City of Fresno  
Department of Public Utilities – Water Division  
2101 G Street, Bldg A  
Fresno, CA 93706-1620

Subject: Fresno Metro Program – Program Management Services  
CH2M Program Management Contract Annual Summary Report for FY 2016

Dear Mr. Carbajal:

I am pleased to submit the attached Program Management Contract Annual Summary Report for FY 2016 programmatic activities, summarizing the CH2M team's fiscal-year-to-date financial performance, staffing, accomplishments and activities for FY 2016 program management services provided under our Professional Consultant Agreement approved by City Council on October 31<sup>st</sup>, 2013.

Please note that this report is currently submitted prior to completion of the fiscal year. Therefore, unbilled activity has been estimated to enable approximation of final expenditure values.

CH2M is proud to serve you in implementing your Water Capital Improvement Program. I hope that this summary report provides appropriate and adequate information regarding FY2016 activities and accomplishments.

If you have questions or would like to discuss this document, please contact me at your convenience.

Sincerely,

A handwritten signature in blue ink, reading 'Gino Rapagna'.

Gino Rapagna  
Senior Program Manager  
CH2M

cc: Thomas Esqueda, City of Fresno DPU Director  
Rich Pyle, CH2M Geographic Manager and Fresno Program PIC  
Tom Price, CH2M Regional Manager

## **EXECUTIVE SUMMARY:**

On October 31, 2013, the City Council approved a professional consultant agreement with CH2M HILL for Program Management Services, in the amount of \$6,993,000. Since then, CH2M HILL has engaged in program support services related to program oversight and operations; project management, construction management, engineering and technical support, program controls; project validation and budget planning; financial and funding support; document management; stakeholder communication; public outreach and communication; Administration and Council communication support; CIP planning; regulatory and environmental support; permitting support; hydraulic modeling and GIS support; business and operational improvement planning and implementation; resource planning and staff projections; development of a Program Management Plan and set of delivery guidelines; program systems development and maintenance (PMIS, DMS, SharePoint, Public Website, etc.); professional outreach and awards facilitation as well as many other as-needed and as-requested support activities. The purpose of these activities is to enable accurate budget forecasting, appropriate planning for project implementation, use of best and most efficient practices in project delivery, reduction of overall CIP implementation costs and improved asset management, during current and future heightened levels of CIP activity.

On August 5, 2014, the City approved Amendment No. 1 to the original professional consultant agreement, extending the period of service for original contract (FY2014) funding through July 2014.

On August 28, 2014, the City Council approved Amendment No. 2 to the original professional consultant agreement, providing additional funding in the amount of \$6,900,000 for FY2015.

On June 18, 2015, the City Council approved Amendment No. 3 to the original professional consultant agreement, providing additional funding in the amount of \$7,100,000 for FY2016.

On August 5, 2015, the City Council approved Amendment No. 4 to the original professional consultant agreement, providing additional funding in the amount of \$1,140,000 for FY2016.

Program Management Services are focused on achieving the following goals:

- Develop best-in class Program and project management systems to enable on-schedule and on-budget project delivery.
- Improve effectiveness and efficiency of project delivery and O&M activities.
- Communicate the value of the Water Capital Plan to customers and all stakeholders, maximize involvement of local business, and create opportunities for economic development.
- Ensure a safe potable water supply to customers while mitigating impacts from pending regulations.
- Implement Water Capital Plan projects to enable a balanced water supply by maximizing use of surface water supplies, reducing groundwater pumping, and increasing groundwater recharge, water conservation and water reuse.
- Apply asset management strategies to renew aging infrastructure.
- Enable knowledge transfer to support professional development and certification for Water Division professionals.

This report summarizes the CH2M HILL team's financial performance, staffing, accomplishments and activities for FY 2016 program management services provided under the Professional Consultant Agreement approved by City Council on October 31<sup>st</sup>, 2013.

Including actual billings through the end of March and projected billings for April through June, expenditures against Amendment #3 and Amendment #4 are estimated at \$7.94 million, in comparison to an \$8.24 million budget. Approximately \$300,000 remains as estimated surplus budget, which may or may not remain unspent at the end of the fiscal year.

Current integrated team staffing is currently at 35 team members, including 12 City staff and 23 CH2M HILL Team staff. Size of the integrated team may increase or decrease as necessary to assure effective delivery of the City Water Division's CIP. The integrated team is supplemented by staff assigned to local and remote consultant/subconsultant offices, these staff bringing necessary and valuable expertise in many areas of program

delivery, design and construction management. Included in the current integrated team staff are 4 from local subconsultants, 6 local hires, and 8 staff that have relocated their homes to the Fresno area.

A list and description of significant program and project-specific accomplishments and activities may be found starting on Page 2 of this report. These accomplishments contribute greatly to the City's future success in implementing the many important projects of Recharge Fresno, the Metropolitan Water Resources Management Plan and the overall Water Division CIP.

## **PROGRAM MANAGEMENT SERVICES AMENDMENTS #3 AND #4 BUDGET PERFORMANCE:**

<b>FY 2016 Budget, Billings and Surplus:</b>	
Authorized Budget, Amendments #3 and #4:	\$ 8,240,000
Actual Billings, through March 2016:	\$ 5,110,000
Estimated Billings, April through June 2016:	\$ 2,830,000
Estimated Billings, through June 2016:	\$ 7,940,000
Estimated % spent, through June 2016:	96 %
Estimated Surplus, at end of June 2016:	\$ 300,000

## **FY 2016 INTEGRATED STAFFING:**

<b>Integrated Team Members:</b>	City Staff	CH2M Team Staff <sup>(1)</sup>	Total
Program Management	1	1	2
Project Management (PMs and support)	3	3	6
Construction Management & Admin Support		6	6
Engineering & Technical Support	7	2	9
Permitting Support		1	1
Community Relations		3	3
Program Controls		5	5
Administrative Support	1	1	2
Interns		1	1
<b>Total</b>	<b>12</b>	<b>23</b>	<b>35</b>

<sup>(1)</sup> Includes current CH2M HILL Team staff who are integrated full- or part-time into the Program team, including support for Wastewater Mgmt Division CM. Does not include staff which support the Program on an as-needed basis from other offices.

## **FY 2016 ACCOMPLISHMENTS:**

Listed below are highlighted accomplishments of the integrated Program Management Team during FY2016, to date.

### **Progress on Major CIP Projects**

- T-4 Tank and Pump Station:
  - Completed construction with less than 2% change orders, all within supplemental task budget
- Southeast Surface Water Treatment Facility (SES WTF):
  - Finalized funding agreement for \$186 million low-interest SRF loan
  - Completed environmental permitting
  - Completed design, contractor qualification and construction bidding
  - Awarded \$159 million construction contract and started construction
  - Conducted public outreach meetings with community and individual meetings with significantly affected businesses and organizations

- Friant-Kern Canal Pipeline (FKCP):
  - *Received commitment from Drinking Water State Revolving Fund (DWSRF) for \$26 million low-interest State Revolving Fund (SRF) loan*
  - *Completed land acquisition and environmental permitting*
  - *Completed design, contractor qualification and construction bidding*
  - *Ready to award construction contract (April 21) and start construction*
- Kings River Pipeline (KRP):
  - *Received commitment from DWSRF for \$77 million low-interest SRF loan*
  - *Completed land acquisition and environmental permitting*
  - *Completed design, contractor qualification and construction bidding*
  - *Ready to award construction contract (April 28) and start construction*
  - *Completed five public outreach meetings with community and have conducted individual meetings with significantly affected businesses and organizations*
- Regional Transmission Mains (RTMs):
  - *Received commitment from DWSRF for \$63 million low-interest SRF loan*
  - *Initiated final design and progressed to 90% design completion, with 100% design to be completed for first two construction segments in May*
  - *Completed land acquisition and environmental permitting*
  - *Completed contractor qualification and will initiate construction bidding in April*
  - *Completed six public outreach meetings with community and have conducted individual meetings with significantly affected businesses and organizations*

#### Program and Project Delivery

- Maintained on-schedule and on-budget performance for major projects and overall program.
- Increased participation of local contractors and consultant through right-sizing of construction projects and inclusion of local consultants on Program Manager's construction management teams.
- Through strong management and technical performance, including activities related to design and contractor pre-qualification, enabled highly competitive bidding which resulted in excellent bids on SESWTF, FKCP and KRP, with all bids under cost estimates.
- Enhanced project delivery systems and employed Earned Value Management (EVM) practices to accurately track and forecast progress in alignment with spending.
- Enhanced project budgeting, approval and change management practices.
- Implemented rigorous QA/QC practices to assure high-quality construction documents and minimize risk and change during construction.
- Further improved front end specifications to support effective construction management and risk mitigation.
- Enhanced community relations and transparency tools, including upgrades to public website and map-based, city-wide Project-Finder applications.
- Collaborated with Fresno Irrigation District and County of Fresno to assure their concurrence with design (pipeline and traffic control) and public outreach practices.
- Coordinated with utility companies to put in place practices to best manage utility conflict risks during construction.
- Consistently and effectively managed contractor prequalification for all major projects to meet requirements of the Construction Management Act and to minimize risk of protest by contractors.
- Developed construction management staffing plan to assure appropriate resources are in place for construction oversight and quality control.
- Selected consultant for project safety oversight to enhance safety culture and best manage safety risk

- Selected consultants and awarded contracts for labor law compliance monitoring in accordance with requirements of SRF funding agreements.
- Further enhanced Project Management Information System (PMIS), including the program delivery Portal, Program Performance Dashboards, Document Management systems, and the Recharge Fresno public website.
- Implemented on-line tools for construction contract, change and records management, reporting and consistency in construction management practices across all projects.

### **FY 2016 ACTIVITY:**

To accomplish goals listed in the Executive Summary, services are categorized in the following three areas of activity:

- Program Management, Administration and Support - This area of activity focuses on ongoing program-level activities to support programmatic oversight and execution.
- Program Initiation - This area of activity includes activities necessary for program set-up and to enable readiness for ongoing program management and project delivery functions. These tasks are essentially complete, although certain systems are being further developed to support construction activities.
- Project Delivery - This area of activity includes staff augmentation for project-specific project management and technical support, to enable successful and efficient delivery of planned capital projects.

The following table includes descriptions of significant activities that have occurred within defined program tasks during FY 2016, although it is not inclusive of all program activity. The scope of work contained within the original contract was developed to support ongoing program activities for the life of the contract.

CH2M HILL Task Number and Description	Significant Activity
<b>Task 01</b> <b>Program Management &amp; Administration</b> (Task 01 activities may be generically described to reflect ongoing program efforts.)	
01.01.PM - Program Mgmt	<ul style="list-style-type: none"> <li>• Program oversight and management; staffing and staff oversight; budgeting and financial management; program communications.</li> <li>• Supported preparation of materials and presentations for community meetings, and other communications with the community, City Administration and Council Members.</li> <li>• Maintained, updated and or further developed Program Management Plan (PMP), Program Guidelines and various other program directives.</li> </ul>
01.01.AD - Program Admin	<ul style="list-style-type: none"> <li>• Program administration; invoicing; subconsultant procurement, administration and financial/contract management.</li> <li>• General program office management and administrative support.</li> <li>• Construction management office set up.</li> <li>• Labor compliance management.</li> </ul>

CH2M HILL Task Number and Description	Significant Activity
01.01.PC - Program Controls	<ul style="list-style-type: none"> <li>• Program-level controls for cost and schedule management by schedulers, cost analysts and estimators including cost and schedule database management; operation of cost and schedule systems and software; integration of City of Fresno financial data; coordination with program and project teams for monthly update and reporting.</li> <li>• Refined and analyzed schedules and cash flows to accommodate the approved rate plan.</li> <li>• Prepared schedules and cost estimates for newly identified projects.</li> <li>• Conducted Earned Value Management (EVM) and KPI analysis.</li> <li>• Supported identification and understanding of budget/schedule variances.</li> <li>• Managed data distribution for publishing to Performance Dashboards, the public website and public, map-based Project Finder applications.</li> <li>• Prepared and maintained city-wide major projects schedule for CMO.</li> <li>• Further developed and optimized cost projection processes.</li> <li>• Developed and/or improved templates for and produced program- and project-level performance reports.</li> <li>• Improved process to support budget development and supported annual budget preparation for FY2017.</li> </ul>
01.01.PJ – Project Mgmt Oversight	Oversight of CIP Project Management (PM) activities, providing overall PM coordination, facilitating PM meetings, reviewing project performance and working with PMs to understand and improve CIP project performance. Ensure projects stay on track (budget, schedule, etc.) by appropriately communicating and driving consistent use of established PM practices and guidelines. Monitor PM related issues and mitigate risks.
01.01.EP - Engineering & Planning (General)	<ul style="list-style-type: none"> <li>• General engineering and planning efforts, including planning level efforts for pipeline replacement projects and new well construction and rehabilitation projects, hydrogeology support for well projects, and other studies related to the CIP.</li> <li>• Coordination internal (City DPU, DPW, Traffic, City Engr) design review and approvals.</li> <li>• Provided advisory support to DPU GIS Workgroup.</li> <li>• Provided technical and advisory support regarding water resource modelling.</li> <li>• Provided technical and advisory support for Northeast Water Quality Analysis.</li> <li>• Provided technical and advisory support regarding blending of surface water (from SESWTF) and groundwater and associated corrosion and finished water quality issues in Southeast area.</li> </ul>
01.01.GT – General Technical Support	General (NOT CIP-related) engineering and planning efforts, including those that may be related to overall engineering and planning betterment, but not specifically related to project delivery.
01.01.HM - Hydraulic Modeling	<ul style="list-style-type: none"> <li>• Provided hydraulic modeling support for final RTM alignment and sizing optimization and for various operational analysis requested by the City.</li> <li>• Assisting with comparison of model results versus field test results for extent of surface water influence in distribution system.</li> </ul>



CH2M HILL Task Number and Description	Significant Activity
01.01.CM - Construction Management Oversight	<p>Oversight of Construction Management (CM) activities, providing overall CM planning, procurement, coordination, and control of construction projects from award through completion. Ensure functionally and financially viable construction projects by managing quality assurance and driving consistent use of established CM best practices and guidelines. Further development of construction guidelines and construction related contract specification standards. Standardization of processes, systems and tools for construction management, including support for development, testing, deployment, and training. Monitor construction related issues and mitigate risks. Work this period included the following:</p> <ul style="list-style-type: none"> <li>• Further defined processes and oversaw development and enhancement of SharePoint-based construction contract and document management applications (RFIs, Submittals, Meeting Notes, Daily Reports, Transmittals, change management and progress payment), to enable appropriate management of construction related communication and documents in accordance with construction contract and specification requirements.</li> <li>• Updated Program Construction Management Guideline.</li> <li>• Supported procurement activities for Programmatic Construction Safety Oversight Consulting Services, including SOQ review, interviews, selection, and scope and fee development.</li> <li>• Prepared revisions/improvements to contract specifications for construction scheduling and change management.</li> <li>• Prepared CM staffing plans for major Recharge Fresno projects.</li> <li>• Conducted interviews, selected and initiated onboarding of construction managers, inspectors and construction administrative assistants.</li> <li>• Supported contractor prequalification process for major Recharge Fresno projects.</li> <li>• Supported construction contractor bidding process for major Recharge Fresno projects.</li> <li>• Field visit to Ameron Pipe facility with DPU's O&amp;M staff and Program Management team as part of training/education related to upcoming large diameter transmission pipeline projects.</li> <li>• Assisted Public Outreach team with development of draft Construction Public Outreach Plan document.</li> <li>• Facilitated meeting with the Wastewater Division to discuss Construction Management approach and services for upcoming Reclaimed Water Transmission Main (RWTM) projects.</li> <li>• Supported review of change requests and claims for T-4 and RWTM projects.</li> <li>• Supported baseline schedule review for SESWTF.</li> </ul>
01.01.OC - Operations & Commissioning Support	<ul style="list-style-type: none"> <li>• Participated on the selection panel for the City of Fresno Water Supervisor position. Documented responses and provided a summary of recommendations.</li> </ul>

CH2M HILL Task Number and Description	Significant Activity
01.01.PV - Project Validation & Budget Planning	<ul style="list-style-type: none"> <li>Produced FY2016 Project Validation Report.</li> <li>Validation and assessment of projects to support as-needed revisions to the CIP, to accommodate new projects, and project deferrals necessary to meet projected reduced revenue limitations.</li> <li>Worked with rate consultant to analyze CIP changes and validate revised expenditure projections against approved rate plan.</li> <li>Coordinated CIP budget preparation process for Fiscal Years 2016 through 2021, including project cost and schedule review/modification, synchronization of CIP/project implementation plan with finance, confirmation of funding sources, and preparation for data transfer to finance.</li> </ul>
01.01.GA - Government Affairs and Grants Support	<ul style="list-style-type: none"> <li>Provided advisory support regarding application for IRWM grant.</li> <li>Coordinated efforts with Provost and Pritchard to ensure the Bureau of Reclamation received all appropriate information for the WaterSmart Grant.</li> <li>Worked to ensure the City of Fresno was properly registered in the federal government's online system to receive grant funding.</li> <li>Provided review of state legislation, SB 88, as it could impact the City of Fresno and require extension or consolidation of water service with a small disadvantaged community that is unable to adequately provide water to its residents.</li> <li>Provided advisory support related to SGMA implementation.</li> <li>Provided advisory support related to USBR allocations (Bucholz).</li> <li>Government affairs advisory support to Mayor's office (by Gualco).</li> </ul>
01.01.RM - Risk Management	Advanced development of project/construction risk management application.
01.01.DM - Document Management	<ul style="list-style-type: none"> <li>Maintained, updated and further developed Program Portal for Program team collaboration.</li> <li>Maintained program document management systems, document libraries and construction contract and document management systems.</li> <li>Supported systems development including as related to the Program Delivery Portal and new sub-sites for Construction Management.</li> <li>Coordinated development of CM workflows for construction contract and document management.</li> <li>Maintained, updated and/or developed Document &amp; Record Management Plan, guidelines and user guides.</li> <li>Prepared user guide for construction management sub-sites and contract/document management systems.</li> <li>Developed training materials, and coordinated and performed training for existing program staff and new CM staff, regarding SharePoint, document management system, and CM sub-site and contract/document management tools.</li> <li>Developed project reporting tools for status of construction RFIs, submittals and Inspection Reports.</li> </ul>



CH2M HILL Task Number and Description	Significant Activity
01.01.PL - Permit and Land Acquisition Management	<ul style="list-style-type: none"> <li>• Provided general permitting support to Program and Project Management team.</li> <li>• Coordinated permitting and land acquisition activities for all major projects.</li> <li>• Provided guidance on environmental and permitting issues in support of SRF loan applications.</li> <li>• Enhanced and maintained Permit and Real Estate Acquisition tracking tools, including as related to master permit list, permitting documentation and permitting schedules for major projects.</li> </ul>
01.01.PR - Procurement and Contracts Management	<ul style="list-style-type: none"> <li>• Improved City front end specifications to include contract terms that appropriately balance risk, encourage competitive bidding, and provide clarity of responsibilities to minimize bids.</li> <li>• Coordinated prequalification of construction contractors for major construction projects, including SESWTF, FKCP, KRP and RTMs, to drive selection of qualified contractors and minimize risk to the City.</li> <li>• Supported bidding process for major projects, including SESWTF, FKCP and KRP.</li> <li>• Coordinated solicitation and contracting for labor compliance monitoring services, to provide adequate expertise and support for labor compliance assurance and protect City from risk of Contractor's non-compliance.</li> <li>• Coordinated solicitation and contracting for program and project safety oversight services, to monitor contractor safety activities, assure contractors maintain construction site safety in conformance with contract requirements, and minimize associated risk to City.</li> <li>• Supported procurement for consulting services for FKCP construction-phase biological monitoring.</li> <li>• Maintained Local Contracting Analysis, to summarize amount of contracting toward local business.</li> </ul>
01.01.SM - Safety Management	<ul style="list-style-type: none"> <li>• Reviewed and enhanced safety-related construction specifications.</li> <li>• Supported understanding of roles and responsibilities related to construction safety.</li> <li>• Advised regarding safety training requirements and recommendations for program, project and construction management staff, including subconsultant staff in construction management roles.</li> <li>• Supported procurement and selection of programmatic safety oversight consultant.</li> </ul>
01.01.PS - PMIS Administration	<p>Oversight, guidance, support and administration of PMIS and associated IT systems.</p> <ul style="list-style-type: none"> <li>• Maintained and monitored system hosting environment and servers, and all Program applications and databases, to assure system integrity, performance and data protection.</li> <li>• Provided help desk support for hosted IT systems.</li> <li>• Performed data upload and quality checks for project performance data posted to Program Performance Dashboard, public website, map-based Project Finder, and other applications.</li> <li>• Managed PMIS and IT systems user access and security.</li> </ul>

CH2M HILL Task Number and Description	Significant Activity
01.01.PE - PMIS Enhancements Development	<p>Further developed Program Management Information System (PMIS) and rolled out additional components for use by the program team.</p> <ul style="list-style-type: none"> <li>• Deployed upgraded Permitting and Real Estate tracking tools, consolidating them with other Program systems, to increase efficiencies and reduce cost associated with separate tools used during early stage of Program.</li> <li>• Developed and implemented enhancements to Program Portal, Performance Dashboards, and miscellaneous other PMIS applications.</li> <li>• Enhanced data update process for Program Performance Dashboards.</li> <li>• Enhanced/improved existing tools and/or developed, tested and deployed new tools for construction contract and document management.</li> <li>• Implemented, tested and deployed upgraded public website.</li> </ul>
01.01.PO - Public Outreach (General)	<ul style="list-style-type: none"> <li>• Developed and updated Recharge Fresno informational materials.</li> <li>• Maintained stakeholder database and contact information.</li> <li>• Upgraded public website to enable enhanced visitor experience, allow more effective and efficient web-site management and update, and support new project-specific content.</li> <li>• Developed, maintained and updated web-site content on monthly basis to assure up-to-date information is available to the public and other stakeholders.</li> <li>• Monitored news media and social media for articles and postings related to the Program. Distributed media coverage summaries.</li> <li>• Supported preparation of social media postings, new articles and press releases for publications.</li> <li>• Logged all voicemail and e-mail public inquiries, and coordinate tracked response.</li> <li>• Coordinated speaking engagements.</li> <li>• Prepared project-specific construction phase outreach plans and templates.</li> <li>• Coordinated and prepared materials for project-specific public meetings</li> <li>• Distributed notices and invitations for public meetings.</li> <li>• Supported project-specific meetings with individual residents and business owners.</li> <li>• Coordinated and prepared materials for Recharge Fresno Groundbreaking Event.</li> <li>• Supported program/project award planning.</li> </ul>
01.01.TS - Training & Skills Transfer	<p>Conducted training sessions related to new/updated program guidelines, document management, CM tools and other programmatic processes and tools.</p>
01.EX - Expenses - Program Mgmt, Admin & Support	<p>Expenses associated with all Task 01 activities, including travel expenses for staff that have worked on Task 01 activities during the billing cycle.</p>

CH2M HILL Task Number and Description	Significant Activity
<b>Task 03</b> <b>Project Delivery Staff Augmentation</b> (Task 03 activities are generically described to reflect ongoing program efforts that are specific to City of Fresno CIP jobs.)	
All associated subtasks, as aligned with specific CIP projects	<p>Project management and technical support directly and specifically associated with City of Fresno CIP jobs (as indicated on invoice by CIP job number). Aligned with City of Fresno activity codes, work efforts may have included any of the following: Project Management; Scope, Cost and Schedule Management; Project Controls, Cost Estimating and Scheduling; Communication Management; Risk Management; Change Management; Contract Administration and Procurement Support; Planning; Regulatory and Environmental Support; Permitting Support; Land Acquisition Support; Engineering, Design Oversight and Quality Control; Construction Management, Inspection and Administration; Operations, Commissioning and Start-up Support; Document Management; Design and other Technical Support.</p> <p>Projects with significant activity during FY2016 include:</p> <ul style="list-style-type: none"> <li>• Tank T-4</li> <li>• Southeast Surface Water Treatment Facility</li> <li>• Friant-Kern Canal Pipeline</li> <li>• Kings River Pipeline</li> <li>• Regional Transmission Mains</li> <li>• Orange Center School pipeline</li> <li>• Well construction and rehabilitation projects</li> <li>• Pipeline rehabilitation and replacement projects</li> <li>• Other system improvement projects</li> </ul>